



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1456  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,048	02/08/2002	John Scott McDaniel	5415	3640

7590

08/13/2003

Terry T. Moyer  
P.O. Box 1927  
Spartanburg, SC 29304

EXAMINER

SALVATORE, LYNDIA

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 08/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/071,048

Applicant(s)

MCDANIEL ET AL.

Examiner

Lynda M Salvatore

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claim 1 is objected to because of the following informalities: Claim 1 should recite the word separable instead of separate in line 3. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1 and 24 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for providing a non-woven fabric comprising elementary filaments derived from conjugate filaments does not reasonably provide enablement for a fabric comprising continuous conjugate filaments, wherein after subjected to a treatment, further comprises a first filament material and a second filament material comprising a filament skeleton that has been partially reconfigured. Specifically, the specification only teaches a fabric derived from conjugate filaments, which are separated by chemical degradation, whereas the claim is directed to a fabric comprising conjugate filaments, wherein each conjugate fiber comprises "separable" materials which are a result of a process that is not positively recited. In other words, the claim only recites a material which is "separable" when subjected to an acid treatment and that after said treatment results in a first filament material and a second filament material comprising a filament skeleton that has been at least partially reconfigured. The specification

Art Unit: 1771

does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

With regard to claim 24, the specification, while being enabling for providing a non-woven fabric comprising elementary filaments derived from conjugate filaments does not reasonably provide enablement for a fabric comprising conjugate filaments, which further comprise at least one filament material and a second filament material. In other words, as recited the fabric comprises a blend of conjugate filaments, a first filament material, and a second filament material, wherein the second material appears to be derived from a conjugate filament that is "separable" by means of chemical degradation. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2-10 are further rejected for their dependency on claim 1.

6. Claim 1 is indefinite because it is unclear to the Examiner what constitutes a "filament skeleton" and how said "filament skeleton" at least partially reconfigures. The Examiner has reviewed the Applicants disclosure regarding the "polyamide skeletons", however, it is not found to sufficiently render the claim definite. Specifically, it is unclear if the "filament skeleton" has a fiber structure before and after exposure to acid, or if it becomes particle in nature. The specification teaches exposing a bicomponent fiber to the Applicant's chemical treatment

Art Unit: 1771

provides a polyester component, a degraded polyamide components, and plurality of polyamide skeletons of undetermined structure. It is unclear to the Examiner how the polyamide component is chemically treated to provide both a degraded component and a "skeleton" component since the claim appears to split a conjugate fiber into two elementary filaments. Is the polyamide component a collection of the degraded polyamide components? With regard to the reconfiguration limitations of said "skeletons", since it is not clear what actually constitutes the "skeleton" structure it is unclear to the Examiner how or what is "reconfigured" and "reconfigured" to what? In other words, if "skeletons" reconfigure, then what is the final structure? It is also unclear to the Examiner how the "skeletons" apply to the present invention when the claim is directed to a "separable" process that apparently renders the conjugate filament separated. Without such limitations, it is impossible to determine the full scope of the claim. To that end, the limitation reciting "a filament skeleton that has been at least partially reconfigured" will not be given patentable weight. For purposes of examination this claim will be interpreted as non-woven fabric comprised elementary filaments derived from the splitting of conjugate filaments.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Groten et al., US 5,899,785.

The patent issued to Groten et al., teaches a non-woven fabric comprising very fine continuous filaments of separable composite filaments (Abstract). The composite filaments forming the elementary filaments may comprise a polyester/polyamide combinations such as polyethylene terephthalate and polyamide 6 (Column 1, 63-67 and Figures 1-3). With regard to claim 12, Groten et al., teaches that the ratio of the cross-sectional area of each elementary filament to the total cross-sectional area of the unitary filament ranges from .5 to 90%, thus where each elementary fiber has a cross-sectional area of 50% for example, and comprises polyamide 6 then the amount of polyamide 6 would correspond to the relative percentage present in the bicomponent fiber.

The limitation of "is substantially resistant and is susceptible" to acid degradation, as well as the limitation of "separable" constitutes a "capable of" limitation. It has been held that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense *In re Hutchinson*, 69 USPQ. However, it is reasonable to presume that said conjugate fiber is inherently "separable" since the prior art teaches the claimed materials used to form the fiber.

Additionally, it should be noted that if the Applicant positively recited said acid treatment that such a recitation would be construed as a process limitation and would not be given patentable weight unless it is shown that said process limitations patentably distinguish the final product structure over the prior art.

#### ***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1771

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 17-23 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Groten et al., US 5,899,785.

The patent issued to Groten et al., teaches a non-woven fabric comprising very fine continuous filaments of separable composite filaments (Abstract). The composite filaments forming the elementary filaments may comprise a polyester/polyamide combinations such polyethylene terephthalate and polyamide 6 (Column 1, 63-67 and Figures 1-3).

Although, Groten et al., fails to explicitly state the absorption capacity of the non-woven fabric, it is reasonable to presume that said absorption property is inherent to the invention of Groten et al. Support for said presumption is found in the use of like materials (i.e., polyamide 6 and PET) and the use of like processes such as separating composite filaments into elementary filaments, which would result in the claimed absorption property. The burden is upon the Applicant to evidence otherwise. *In re Fitzgerald* 205 USPQ 594

In addition, the presently claimed absorption properties would obviously have been present once the Groten et al., product is provided. *In re Best*, 195 USPQ 433

The limitation of “separable” constitutes a “capable of” limitation. It has been held that an element is “capable of” performing a function is not a positive limitation but only requires the

Art Unit: 1771

ability to so perform. It does not constitute a limitation in any patentable sense *In re Hutchinson*, 69 USPQ. However, it is reasonable to presume that said conjugate fiber is inherently "separable" since the prior art teaches the claimed materials used to form the fiber.

11. Claims 24-31 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Park et al., US 4,460,649.

The patent issued to Park et al., teaches a conjugate fiber comprising polyamide and polyester having an island-in-sea configuration (Column 1, 36-42). Park et al., teaches separating the outer components from the inner components by treating the fabric with acid and alkali chemicals (Column 1, 64-Column 3, 10). The resulting microfibers are suitable for weaving or knitting into a fabric (Column 2, 13-15).

Although, Park et al., fails to explicitly state the enhanced hydrophilic characteristics, it is reasonable to presume that said absorption property is inherent to the invention of Park et al. Support for said presumption is found in the use of like materials (i.e., polyamide and polyester) and the use of like processes such as treatment with an acid and base chemicals, which would result in the claimed absorption property. The burden is upon the Applicant to evidence otherwise. *In re Fitzgerald* 205 USPQ 594

In addition, the presently claimed absorption properties would obviously have been present once the Park et al., product is provided. *In re Best*, 195 USPQ 433

The limitation of "separable" constitutes a "capable of" limitation. It has been held that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense *In re Hutchinson*,



Art Unit: 1771

69 USPQ. However, it is reasonable to presume that said conjugate fiber is inherently "separable" since the prior art teaches the claimed materials used to form the fiber.

Additionally, with regard to claim 24-27, Applicant's recitation of exposing the polyester to basic solution and exposing the polyamide to an acidic solution are considered process limitations and are not given patentable weight at this time since it is not shown that said process steps materially effect the final product structure. The presence of process limitations on product claims, in which the product does otherwise patentably distinguish over the prior art, cannot impart patentability to the product. *In re Stephens*, 145 USPQ 656


The burden is shifted to the Applicant to evidence an unobvious difference between the prior art product and the claimed product. *In re Marosi*, 218 USPQ 289.2


***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 703-305-4070. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

ls   
August 11, 2003

  
TERREL MORRIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700